

Client's ref.: TSMC2003-1065/PE:DCLin
Our ref.: 0503-A30136-USf/Yianhou/Kevin/Nelson

What Is Claimed Is:

- 1 1. A reliability assessment system, comprising:
2 an interface to receive input items; and
3 an assessment engine to perform a reliability assessment
4 accordingly, generate a result of the reliability
5 assessment, and display the result on the interface.
- 1 2. The system of claim 1 wherein the interface is a
2 web-based interface.
- 1 3. The system of claim 1 wherein the assessment engine
2 further writes the input items and the corresponding result to
3 a database.
- 1 4. The system of claim 1 further comprising an email
2 server.
- 1 5. The system of claim 1 wherein the interface further
2 receives selections of a process for a product and a
3 corresponding output item.

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1 6. The system of claim 5 wherein the assessment engine
2 further performs the reliability assessment accordingly,
3 generating the result.

1 7. The system of claim 5 wherein the product is a
2 semiconductor product.

1 8. The system of claim 7 wherein the process comprises
2 GOI, HCI, NBTI, EM or IMD-TDDB.

1 9. The system of claim 1 wherein the interface further
2 receives a selection of an assessment item for a product.

1 10. The system of claim 9 wherein the assessment engine
2 further performs the reliability assessment for the assessment
3 item accordingly, generating the result of the assessment item.

1 11. The system of claim 9 wherein the assessment item
2 comprises EFR (early failure rate), LTFR (long term failure
3 rate), overdrive, overshoot, or temperature of the product.

1 12. The system of claim 1 wherein the input items comprise
2 technology and specifications of a product.

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1 13. The system of claim 12 wherein the product is a
2 semiconductor product.

1 14. The system of claim 13 wherein the technology is
2 geometry of the semiconductor product.

1 15. The system of claim 13 wherein the specification
2 comprises parameters comprising at least a voltage and a
3 lifetime of the semiconductor product.

1 16. A computerized reliability assessment method,
2 comprising the steps of:
3 receiving input items through a web-based interface;
4 performing a reliability assessment accordingly; and
5 generating a result of the reliability assessment.

1 17. The method of claim 16 further comprising displaying
2 the result on the web-based interface.

1 18. The method of claim 16 further comprising writing the
2 input items and the corresponding result to a database.

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1 19. The method of claim 16 further comprising sending an
2 email notification.

1 20. The method of claim 16 further comprising receiving
2 selections of a process for a product and a corresponding output
3 item through the web-based interface.

1 21. The method of claim 20 further comprising performing
2 the reliability assessment accordingly, generating the result
3 of the output item.

1 22. The method of claim 20 wherein the product is a
2 semiconductor product.

1 23. The method of claim 22 wherein the process comprises
2 GOI, HCI, NBTI, EM or IMD-TDDB.

1 24. The method of claim 16 further comprising receiving
2 a selection of an assessment item for a product through the
3 web-based interface.

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1 25. The method of claim 24 further comprising performing
2 the reliability assessment for the assessment item accordingly,
3 generating the result of the assessment item.

1 26. The method of claim 24 wherein the assessment item
2 comprises EFR (early failure rate), LTFR (long term failure
3 rate), overdrive, overshoot, or temperature of the product.

1 27. The method of claim 16 wherein the input items
2 comprise technology and specifications of a product.

1 28. The method of claim 27 wherein the product is a
2 semiconductor product.

1 29. The method of claim 28 wherein the technology is
2 geometry of the semiconductor product.

1 30. The method of claim 28 wherein the specification
2 comprises parameters comprising at least a voltage and a
3 lifetime of the semiconductor product.

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1 31. A machine-readable storage medium storing a computer /
2 program which, when executed, directs a computer to perform a
3 method of reliability assessment, comprising the steps of:
4 receiving input items through a web-based interface;
5 performing a reliability assessment accordingly; and
6 generating a result of the reliability assessment.

1 32. The storage medium of claim 31 further comprising
2 displaying the result on the web-based interface.

1 33. The storage medium of claim 31 further comprising
2 writing the input items and the corresponding result to a
3 database.

1 34. The storage medium of claim 31 further comprising
2 sending an email notification.

1 35. The storage medium of claim 31 further comprising
2 receiving selections of a process for a product and a
3 corresponding output item through the web-based interface.

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1 36. The storage medium of claim 35 further comprising
2 performing the reliability assessment accordingly, generating
3 the result of the output item.

1 37. The storage medium of claim 35 wherein the product is
2 a semiconductor product.

1 38. The storage medium of claim 37 wherein the process
2 comprises GOI, HCI, NBTI, EM or IMD-TDDB.

1 39. The storage medium of claim 31 further comprising
2 receiving a selection of an assessment item for a product through
3 the web-based interface.

1 40. The storage medium of claim 39 further comprising
2 performing the reliability assessment for the assessment item
3 accordingly, generating the result of the assessment item.

1 41. The storage medium of claim 39 wherein the assessment
2 item comprises EFR (early failure rate), LTFR (long term failure
3 rate), overdrive, overshoot, or temperature of the product.

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1 42. The storage medium of claim 31 wherein the input items
2 comprise technology and specifications of a product.

1 43. The storage medium of claim 42 wherein the product is
2 a semiconductor product.

1 44. The storage medium of claim 43 wherein the technology
2 is geometry of the semiconductor product.

1 45. The storage medium of claim 43 wherein the
2 specification comprises parameters further comprising at least
3 a voltage and a lifetime of the semiconductor product.

1 46. A reliability assessment method, comprising the steps
2 of: /
3 providing an online reliability assessment of a
4 reliability inquiry via a web-based interface; and
5 generating a result of the reliability assessment on the
6 web-based interface.

1 47. The method of claim 46 further comprising receiving
2 input items for the reliability assessment, in which the result
3 of the reliability assessment is generated accordingly.

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1 48. The method of claim 46 further comprising receiving
2 selections of a process for a product and a corresponding output
3 item through the web-based interface.

1 49. The method of claim 48 further comprising performing
2 the reliability assessment accordingly, generating the result
3 of the output item on the web-based interface.

1 50. The method of claim 46 further comprising receiving
2 a selection of an assessment item for a product through the
3 web-based interface.

1 51. The method of claim 50 further comprising performing
2 the reliability assessment for the assessment item accordingly,
3 generating the result of the assessment item on the web-based
4 interface.

1 52. The method of claim 50 wherein the assessment item
2 comprises EFR (early failure rate), LTFR (long term failure
3 rate), overdrive, overshoot, or temperature of the product.

1 53. A set of application program interfaces embodied on
2 a computer-readable medium for execution on a computer in

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3 conjunction with an application program that performs a
4 reliability assessment, comprising:
5 a first interface to receive input items of a reliability
6 inquiry; and
7 a second interface to display a result of the reliability
8 assessment, in which the result is generated
9 accordingly.

1 54. The set of application program interfaces of claim 53
2 further comprising a third interface to receive selections of
3 a process for a product and a corresponding output item, in which
4 the reliability assessment is performed accordingly.

1 55. The set of application program interfaces of claim 53
2 further comprising a fourth interface to receive a selection of
3 an assessment item for a product, in which the reliability
4 assessment for the assessment item is performed accordingly.